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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,525	01/15/2004	Masao Ohkuchi	247764US	4593

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EXAMINER	
BERNHARDT, EMILY B	

ART UNIT	PAPER NUMBER
1624	

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/757,525	OHKUCHI ET AL.	
	Examiner	Art Unit	
	Emily Bernhardt	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/530949.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1/15/04 & 4/14/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 1-2,6-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. A'"Substituted", "one or more substituents" throughout the claims is unclear as to number and nature of substituent intended. There appears to be no guidance in the specification , only in the dependent claims.

2. Scope of "aryl" is also not clearly set forth in the claims or in specification but appears to include hetero rings - see "pyridyl" as a choice as recited in claim 2,etc. Note In re Hill 73 USPQ 482 regarding distorting terms. See also In re Sus 134 USPQ 301 regarding the various meanings that are considered as part of "aryl" .

3.The structural makeup of N-containing rings in R3 is not known as only one atom is identifed as a ring member. Also it is not clear if the ring is attached directly or indirectly- note the term "residue". See In re Wiggins 179 USPQ 421 regarding such terminology .

4.It should be made clear on p.183 after "alkylthio groups" that what follows are other R2 choices and not additional substituents for phenyl ring. "Or R2 is" should be inserted.

5. Claims 6-11 are substantial duplicates of each other and 12 as they all recite pharmaceuticals of the same scope of active ingredients. Note different intended uses in such claims are usually given no material weight. Note In re Tuominen 213 USPQ 89.

6.Scope of diseases covered by claim 14 is indeterminate since the claim language may read on diseases not yet known to be affected by interleukin production or in ways not yet understood as evidenced by Livingston discussed below.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

1. Specification is not adequately enabled for the scope of pyridazinones claimed which have a variety of functional groups including diverse heteros at R1 and R3. Compounds made and tested represent the scope of claims 3-5 and not remaining claims. There is no reasonable basis for assuming that the myriad of compounds embraced by the claims will all share the same physiological properties since they are so structurally dissimilar as to be chemically non-equivalent and there is no basis in the prior art for assuming the same. Note In re Surrey 151 USPQ 724 regarding sufficiency of disclosure for a Markush group. Also see MPEP 2164.03

for enablement requirements in cases directed to structure-sensitive arts such as the pharmaceutical art.

2.Method claim 14 recites inhibiting interleukin activity which is urged from a reading of the specifcation will enable treatment of diseases such as all autoimmune disorders (eg.MS), all inflammatory diseases, ischemias, leukemias., Alzheimer's, etc. Such assertions would indicate applicants have found wonder drugs encompassing the scope of formula (I) yet many if not most of the diseases listed are very difficult to treat. For MS alone there is no known drug which can successfully reverse the course of the disease. Applicants provide no competent evidence that instantly disclosed assay tests are highly predictive for uses disclosed and embraced by the claim language for humans the intended host. Note Livingston, a reference published in 1997, at best discusses potential use and this for compounds showing activity in the nanomolar range not micromolar range as shown for the limited instant compounds tested. The concluding section in Livingston (on p.24) is quite compelling: "The vast literature on the chemistry and biochemistry of protease inhibitors belies the fact that very few proteases have been successfully targeted for human therapy. The majority of protease inhibitors reported in the literature are too unselective or metabolically unstable to be used effectively for human therapy.". Several line later is the following: "An example of

such an inhibitor is DEVD-H,which despite its low nM Ki values against multiple ICE homologs, is inactive in blocking apoptosis at concentrations below 100 uM." . "Furthermore, for treatment of neurodegenerative diseases such as Alzheimer's disease, blood-brain barrier penetration is necessary and will impose another significant hurdle to successful drug design.". Also, note the criteria for enablement as set out in In re Wands cited in MPEP 2164.01(a),August 2000 edition. Thus given the level of skill in this art which is low and the lack of direction (i.e. art-recognized tests) provided as to what might be treatable and in what dosage compounds are to be administered, as well as the lack of direction (i.e. working examples) provided as to what rings at R1, R3 might work this rejection is being applied.

It is noted that applicants report a test for arthritis and state instant compounds were found active. Treating arthritis would not be objected to as was permitted in earlier allowed parent.

The disclosure is objected to because of the following informalities: Parent history is missing in the specification on p.1. Note status of US parents should be indicated as well.

Appropriate correction is required.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims drafted in terms of Ause A have been held to be nonstatutory. Note Clinical Products v. Brenner 149 USPQ 475.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by El-Kassaby. The journal article describes the preparation of a compound (7b) within the instant scope.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3,6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US'729). Harrison generically discloses and claims instant compounds when Q therein is pyridazinones for use in the control of arthropods. See compounds of formula I where Q=Q-1 and definition of all variables. While compounds such as those on lines 59-61 in Table 5, col.50 do not anticipate the instant scope they are obvious variants as they only differ in being adjacent position isomers- i.e. having 3-methoxyphenyl vs. instant 4-methoxyphenyl. Note that Harrison permits the R2 variable to float on all available ring positions of the phenyl ring. Position isomers are not deemed patentably distinct absent evidence of superior,enexpected results. See In re Crounse 150 USPQ 554;Ex parte Engelhardt 208 USPQ 343 regarding position isomerism. Thus it would have been obvious to one skilled in the art at the time the invention was made to expect

instant 4-OMe derivatives to also possess the uses taught by the applied art in view of the close structural similarity as well as equivalency teaching outlined above.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6348468. Although the conflicting claims are not identical, they are not patentably distinct from each other because they embrace overlapping subject matter to a large degree as the instant case is a continuation of US'468.

The list of related cases filed 4/14/04 has been considered. The subject matter in these case is drawn to subject matter distinct from that claimed herein in view of the substitution present at the 4-position.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Bernhardt whose telephone number is (571) 272-0664.

If attempts to reach the examiner by phone are unsuccessful, the supervisor for AU 1624, Dr. Mukund Shah, can be reached at (571)272-0674.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

E Bernhardt

EMILY BERNHARDT

PRIMARY EXAMINER

Group 1600